

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: LIAMOS ET AL. Examiner: Unknown
(K. OLSEN in parent application)
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Title: SMALL VOLUME IN VITRO ANALYTE SENSOR AND METHODS

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By: 
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PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

This Preliminary Amendment is being filed concurrently with a divisional application under 37 C.F.R. 1.53(b). Prior to Examination of this application, please amend the application as follows:

In the Claims

Cancel claims 9-11.

Add the following new claims 23-32.

23. (New) An electrode connector for use in measuring a bioanalyte in a sample, the sample being present in a sensor strip; the connector comprising:

- (a) a sensor strip receiving area sized for selective receipt therein of a first end of a sensor strip having first and second, opposite, side edges;
- (b) a first electrical contact structure comprising at least three contact leads oriented for each one to separately contact a separate electrode trace in the first end of the sensor strip when the first end of the sensor strip is operatively positioned in the sensor strip receiving area; and
- (c) a second electrical contact structure comprising a first insertion lead and a second insertion lead, each of which is positioned to contact an insertion monitor stripe at the sensor strip first end when the sensor strip first end is operatively positioned in the sensor strip receiving area;
 - (i) the first insertion lead being oriented to extend across the first side edge of the sensor strip, to engage the insertion monitor stripe, when the first end of the sensor strip is operatively positioned in the sensor strip receiving area; and,
 - (ii) the second insertion lead being oriented to extend across the second side edge of the sensor strip, to engage the insertion monitor stripe, when the first end of the sensor strip is operatively positioned in the sensor strip receiving area.

24. (New) The connector according to claim 23, wherein:

- (a) the at least three contact leads of the first contact structure extend across a first end edge of the sensor strip, when the first end of the sensor strip is operatively positioned in the sensor strip receiving area, the first end edge being adjacent the first end.

25. (New) The connector according to claim 24, wherein:

- (a) the at least three contact leads terminate a first distance from the first end edge of the sensor strip;
- (b) the first insertion lead and the second insertion lead terminate a second distance from the first end edge; and
- (c) the second distance is greater than the first distance.

26. (New) The connector according to claim 25, wherein the first insertion lead and the second insertion lead, at a third distance from the first end edge, angle toward a longitudinal centerline of the sensor strip, the third distance being greater than the first distance and less than the second distance.

27. (New) The connector according to claim 23, wherein the first contact structure further comprises a fourth contact lead.

28. (New) The connector according to claim 23, wherein the electrode connector comprises a two-part structure having a top portion and a bottom portion, the top portion being removable from the bottom portion, the first contact structure being between the top portion and the bottom portion when the top portion and the bottom portion are assembled.

29. (New) The connector according to claim 23, wherein the electrode connector is electrically connected to a sensor meter that comprises:

- (a) a component to selectively provide at least one of potential and current to the first contact structure;
- (b) a processor to selectively determine analyte concentration from a sensor signal; and
- (c) a display to selectively show results determined from the sensor signal.

30. (New) A connector comprising:

(a) a plurality of contact leads for electrical connection to an electrochemical analyte sensor, each contact lead having a proximal end for electrical connection to a contact on the analyte sensor, and a distal end for electrical connection to an electrical device;

wherein the plurality of contact leads comprises:

- (i) one or more first contact leads extending longitudinally from the distal end to the proximal end; and
- (ii) one or more second contact leads extending longitudinally from the distal end past the proximal end of the one or more first contact leads and angling toward a longitudinal center line of the sensor.

31. (New) The connector of claim 30, wherein the connector comprises at least two second contact leads configured to make electrical contact with a single conductive surface of the sensor when the analyte sensor is electrically connected to the connector.

32. (New) The connector of claim 31, wherein the first contact leads are configured and arranged to contact at least one of a working electrode and a counter electrode of a sensor, and wherein the second contact leads are configured and arranged to contact an insertion monitor of a sensor.

REMARKS

Claims 9-11 have been canceled and new claims 23-32 have been added. Claims 1-8 and 12-22 were canceled in the transmittal documents of the divisional application. Claims 23-32 are pending in this application. The addition of these claims does not affect the filing fee of the application. Examination of the pending claims is requested.

Support for these claims can be found, for example, throughout pages 35-37 of the original specification, and in the illustrations, for example, Figures 16A and 16B, and Figures 18A and 18B. Claims 30-32 are based on now-canceled claims 9-11.

As stated above, this application is a divisional of patent application 09/435,026 filed November 4, 1999. Also being filed on the same date herewith is a continuation application of 09/435,026, the continuation having attorney docket number 12008.42USC1. The claims of the continuation application are directed to both a sensor strip and to an electrical connector.

The Examiner is invited to contact the undersigned if there are any questions or in order to facilitate prosecution of this application.

Respectfully submitted,

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